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ISSN 1013-5316; CODEN: SINTE 8 EDUCATION IN MOTHER TONGUE: NEED OF THE TIME: A CASE STUDY OF A PUBLIC SECTOR COLLEGE AT JAMSHORO

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ABSTRACT: This research paper looks into a long-timed debated topic of medium of instruction in education in Pakistan. Voluminous research has been undertaken in favor of mother tongue based education due to its effectiveness in imparting knowledge and enhancing learning. In the similar vein, the teachers of the research site found it ironical to teach mother tongue only as a subject, while all science subjects were taught in English. Likewise, the students did not encourage the abrupt shift of medium of instructions from local language to English even at the higher secondary education. It posed a challenge for both the teachers and students in accomplishment of their respective objectives. Moreover, in such scenario, it was less likely to get considerable result in understanding of scientific concepts and improved learning. The teachers did not deny the importance of English in the current time, s yet suggested mother tongue to be the medium of instructions. They also pointed out dearth of books and scant teaching trainings in local language .Also, English as an imposed medium of instructions were some of the factors that discouraged to teach in mother tongue. Moreover, students believed that if the medium of instruction was the mother tongue, there were lesser chances of cheating in examination. The research site was a college, situated in a rural setting. The tool for research were the semi-structured interviews of teachers and students. This article may raise the voice of all the stakeholders of teaching-learning process, so that the education policy makers may consider their opinion for the betterment of the education system in future.

Keywords: Mother tongue, medium of instruction, science teaching .

INTRODUCTION:

Pakistan is linguistically diverse and complex, approximately 60 minor and 7 major languages [1]. Unfavorably, since its inception, Pakistan has been facing ambiguous language policy for education. Successive governments have presented the policies that suited their political agendas [2]. In the midst of linguistic competition English enjoys an upper hand over all the native languages .It is due to its instrumental benefits, chiefly, that it has dominated all the native language.

Even in the country's constitution in Article 251, it has a parallel status like Urdu as an official language. Moreover, it is the identifying mark of the elite class, power and private sector of the country, due to which it has superseded all the languages. It's the language of higher education, military and government. [2]. Ironically, its non-native speakers are only a handful elite, who bifurcate the society in two classes of haves and haves not .

In case of education, particularly in the public sectors institutes: Urdu is the official medium of instruction, which is the mother tongue only to 7 % of the population from across the country. However, in Sindh province exclusively, Sindhi: the language of the province, goes side by side Urdu [2]. While English is introduced at primary level as only a subject . Therefore , the dichotomy of the medium of instruction engulfs the educational system of the country.

The three languages have thus created confusions in education in the province. This system has also triggered a debate for its pragmatic implementation any particular language as a medium of instruction or language as a subject. Mustafa(2016), argued that it becomes important to differentiate between the medium of instruction and teaching any language as a subject [3].

At the federal level in 2010, the Government of Pakistan declared that English should be used as the medium of instruction for the teaching of science and mathematics in state schools from the primary level. It appeared that such a policy would require highly skillful and trained teachers [1]. However, the decree failed to ensure the availability of multilingual skilled teachers to carry out the teaching_.

Moreover, Language in education is of prime importance, if education is imparted in the foreign language or in majority case a language that is alien to the students, the purpose of the teaching-learning process remains unaccomplished . In her report Benson[4], believed among many factors involved in the basic quality education, language keeps a core significance. It is the means of clear communication and understanding in the classroom .Therefore, the inconsistency of medium of instruction at public sector educational institutes creates hurdles in the teaching-learning process. Unfortunately, it has become an unquestionable trend, that the state school children are taught in the national language, which is not the mother tongue of the majority . 91.62 % of the country's population speak the mother tongue, which is not used in education Pinnock [5]. It becomes alarming for the learning and imparting education to the students .They fail to understand the concepts and contents of the lessons. In such conditions the students suffer to the extent that they often drop out from the institutes or resort to malpractices like cheating in exams . If education is imparted in a language, which is neither spoken at homes or in surroundings it causes difficulties in learning and understanding : most of the times students either fail or drop out from the schools. It is a loss to country and humanity at large[5]. Therefore, effective teaching should be in a 3198

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language, which is their L1, i.e. the language that is spoken at home.

Organisations like UNESCO, World bank, Education for All (EFA), UNO General Assembly conventions have been vocal in propounding education in mother tongue for better learning at least at the primary level. However, the case of this research site is not the primary school level, but the higher secondary education. The medium of instruction at the research site , which is a public sector college is English. Paradoxically, it is an abrupt shift from the ten years prior education in the mother tongue to English . Since this shift between the spoken and imposed language does not go compatible to one another, this creates a lot of hurdles in education and its purpose of imparting knowledge , that could develop the learner's cognitive power to think and critically evaluate the issues.

Even, the UNESCO (1953) recommends the use of vernacular languages in education on the grounds that for a child's socialization and cognitive development, he needs his mother tongue.

In the report referred above, the concept of "Submersion", has been introduced. Submersion is the dominance of a foreign language, in a multilingual society. Submersion becomes difficult, when there is a dearth of trained teachers, inappropriate and inadequate curricula and facilities Etc. particularly when the medium of instruction is also foreign to the teacher. Just as in the case of Pakistan, either Urdu or English are the medium of instruction.

LITERATURE REVIEW:

The medium of instruction controversy is spread across the world. Many countries are multilingual and multi-cultural and thus in the same scenario, students face the similar barriers in acquiring education. In this section we will discuss a few works had have been undertaken to evaluate the problem.

In this article, entitled "Education in mother tongue- A children's right"[6] the writer thoroughly discusses the definition, importance , benefits and difficulties in implementing mother tongue in education. The author argues that for the attainment of education, the language plays a vital role . For language has a potential to give boost to cognitive faculties of the learner, therefore, it is in the wider interest of both learning and understanding that the medium of instruction in the formal learning should be the mother tongue. In case the education is imparted in the language not spoken at home , it not only harms learning process, but also adds to the ratio of the drop out .

This writer quotes Martinet (n.d)[5],a French linguist , who believes that it is the mother tongue with which one comes to know about the world. Similarly, he quotes Orekan(2011)[5] , it is the mother tongue, in which an individual thinks, dreams and counts in. This author in fact suggests that it is through the mother tongue, the cognitive skills are flourishing in such a manner that the learner is able to critically evaluate, visually imagine and calculate. Likewise, scientific concepts are better built if taught in the mother tongue. Giving the example of African educational trends , where post colonial languages are used for education, this author quotes Kuper DDEN: SINTE 8 Sci.Int.(Lahore),28(3),3197-3201,2016 [5], Scientific concepts that are not taught in African Languages are neither understood nor utilized . Moreover, these researchers mentioned here conform to the UNESCO declarations of the Mother tongue day marked every year on February 21st. This school of thought believes that the education in mother tongue is one of the basic human rights of the learner, particularly, at the school level . If education is meant to be practically learnt, it has to be in the mother tongue.

In the article, the writer describes the learning of second language with respect to age factor, in the context of Pakistan, it is suggested that a child learns social English in two years. For educational language it may take up to seven years . If one compares the Critical Hypothesis Period concept, where the age of learning language or scientific concepts is up to 12 years. It appears to be unconvincing that subjects like Mathematics and Science may be taught into English. Therefore, students are thus doomed to fail in such conceptual subjects. The author concludes that to ensure achievements in education, growth and reconstruction in national development, mother tongue may be incorporated as the medium of instruction at educational institutes.

In addition to the above mentioned work, Preeva Daby presented a paper, entitled, "The effectiveness of a mother tongue based education to improve learning outcomes and second language acquisition in public primary schools of Zone 3, Mauritius "[6]. This literature review based paper advocates the inclusion of the mother tongue as a medium of instruction in the multi-lingual of Mauritius . Due to its multilingual fabric, the scenario may be replicated for Pakistan . There were survey conducted online also , in which some 62 teachers participated and their approach, attitudes and beliefs were explored with respect to the incompatible linguistic practice at educational institutes at Mauritius. Debye is found to be a staunch supporter to the mother tongue based instructions. Her survey conducted revealed that English that was a foreign language was only little known to the learners, it thus created a barrier in achieving academic success. It was, therefore, the local language Mauritian Creole that was not used as an official language in classes, but since English lessons were not very comprehensive, the teacher had to switch to the Mauritian Creole in classroom, settings. Creole was looked upon as a sole support to teachers to incorporate it in their lessons. English alone, failed to do the needful . Therefore, the teachers participating in the survey opined that education in mother tongue brought meaningful learning and enhanced the learning abilities. The mother tongue was a crucial factor, that could not be denied, it required its due recognition in the pursuit of academic excellence of the students both in Mauritius as well as the rest of the developing countries . Debye enlisted a number of definitions of the mother tongue and incorporated a wide range of works in her research article that justify the notion of incorporating mother tongue in better understanding and education .

In the similar vein, like Pakistan, Ethiopia is also a multiethnic and multi linguistic ex-British colony, having above than eighty languages [7]. In an attempt of mixed

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methodology, Bachore tried to explore the attitudes and perceptions of school community. The article was titled as "Mother Tongue Based (MTB) Classroom Instruction: *The Attitudes and Perceptions of School Community in Sidama Tone*

Ethiopia "The research site was the Sidama Zone .Teachers, students and parents participated in the research .The research question revolved to explore perceptions of parents and attitudes of students and teachers towards the mother tongue based education school . Through this random sample interview, it was explored that most of the students and parents had negative perceptions about the mother tongue as a medium of instructions in the classroom, the reasons might vary from person to person . On the other hand, the teachers understood the intricacies underlying the implementation of mother tongue as a medium of instructions, therefore, their attitudes and perceptions were positive towards the mother tongue. Moreover, just as in Pakistan, a similar complaint was raised that the shortage of reference material in mother tongue.

Further, in the background of this study, it was informed that Africa had started to closely follow the UNESCO's mandate of World Conference on "Education for All". In this objective, many factors get involved, including the language of instructions. Like Pakistan, the submersion was a prominent issue in Ethiopia, Submersion was the state, where the medium of instruction was not the vernaculars but the foreign language. It could be due to multilingualism already existing any particular society that one particular language, national or international dominated the rest.

However, it is worth mentioning here that in case of mother tongue based multilingual education, it becomes easy to learn 12 and any other academic contents become easy to understand . The writer argued that this research would look into the matter with scientific direction to the school community members to attain optimal output of quality education in L1.

The data triangulated with the interviews and questionnaires concluded that : A reasonably good percentage of the students had positive attitude and perceptions towards the standard of the mother tongue to meet the academic demands

. Their ration stood at 45.9% and 72. 2%. The students believed that communication in Sidama had improved their interaction and participation in class .Similarly, a major chunk of teachers also responded in approval of the mother tongue based instructions, their percentage made approximately 72%. Moreover, parents , also the major stakeholders of the teaching learning process had a mixed reaction, most of them agreed to the topic , however, there were still a considerable number to oppose the idea. Their justification against Sidama was lesser instrumental benefits attached with it. Quoting Benson, this writer raised a concern of the scarcity of the teaching material in Sidama language . If this loop hole was to be build a lot of improvement could be brought in learning process.

RESEARCH QUESTION:

What is the impact of teaching science subjects in a foreign language on the students of Intermediate students?

DATA TOOLS:

The data collection tool for this research was the semi structured interviews . Since , the focus was the science teachers , the type for interviews was the purposive sampling. However, th random sampling type interview was chosen for the interviews of students . There were five science teachers and ten students .Each interview lasted for approximately thirty minutes . The semi-structured interviews not only explored the demands and needs of the teacher-learner community with respect to the medium of instructions in educational institutes but it also opened avenues for more educational research.

DATA ANALYSIS:

After collecting interview data, thematic analysis was made from the interviews. Some of the themes extracted from both the teachers' and students' interviews are given as under:

Ambiguous Educational Policy :

Both the teachers and students raised their concerns at the ambiguous educational policy prevailing in the country. It was a grim fact that since the independence of this country, there has been no firm policy put by the government, it has created the chaotic condition at academic institutes. It posed a huge challenge for the teachers to teach science subjects, which are based upon peculiar concepts and terminology and the substitute vocabulary may not be found in any native language.

Excerpts taken from Teachers' Interview: Teacher 1:

I don't understand, where are we heading to without having basic language policy for eduction. From primary school to Matriculation we teach in mother tongue, and abruptly at the First year of the college . This change is not accepted by the students easily. They badly get baffled to understand the conceptual subjects . Like : Biology, Physics and Chemistry . Excerpts from the students' interviews:

Student 1:

. When I got admission at college, I was happy that now I can study subjects of my choice. I opted for Pre-Medical group. But once the classes started, I was so much confused to understand the text book in English, that I felt, I will never be able to study at higher level classes. We do not have a clear uniform medium of instructions or any firm policy for it, it makes my study hard.

Student 2: I will not get my desired marks . I know . Because till I did my Matriculation in my mother tongue as a medium of instructions , English was only one compulsory course . But now all the major courses are totally in English and mother tongue only as an optional course . And English I don't know much. Now I am very much worried to read or write in English . I think at least government should be careful for education and should declare one language as a medium f instruction from Primary to Higher Secondary education .

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Medium of Instruction: Harmful for Results :

From the interviews, another important theme that came to the surface, that was the results being affected by an abrupt shift of the medium of instruction at the college level. Not only the students were affected due to this dichotomy, but even the teachers realized that despite having a good intelligence level, students could not meet the expectations. Some Excerpts from the interview are given here:

Excerpts taken from Teachers' Interview: Teacher 2:

It is my observation, that students' grades are always affected by the issue of medium of instructions. Sometimes they are unable to understand the lecture in English, some other times they are unable to express appropriately. Thus, it results in bad marking, which affects their future academic progress. Moreover, they have to struggle double to cope up with this problem. It costs them more than they could afford.

Excerpts from the students' interviews:

Student 3:

I am worried about my grades a lot. All my previous education was in my mother tongue. Now, I have to repeat the same topic several times to understand well. Yet, when it comes to writing in the exam, I forget many things. Because the scientific vocabulary is specific and not found in my mother tongue to understand and remember well. Often I can't meet the expectations of the examiners and ultimately, my grades are badly affected.

Student 4: It is very strange that I speak one language at home and study in another, when I study in my mother tongue I am intelligent, when I study science subjects in English I become a dull student. When I am distracted from the subject, I don't care what is the teacher trying to say, because I don't understand the typical scientific vocabulary. If they accept our exam scripts in mother tongue I will get good grades, If they take in English, I will not get good grades.

Scant Literature and Dearth of Teacher Trainings:

A major problem faced by both the teachers and the students is the scant literature in mother tongue and insufficient teacher trainings to improve pedagogy in mother tongue or English. Some of the remarks received from the teacher are : **Excerpts from the teachers' interviews:**

Teacher 4: We teach in English, but it is not our mother tongue. Many a times we do not have simple terminology to help us explain some complex topics of Chemistry and Biology, in such situations we try to wind up the lecture. Many things remain unclear with both the teachers as well as the students. So, it is urgently required that, the textbooks may be published in both the languages, so that whenever, there is a need to refer to any word or concept, we may have a simpler definition, we get our own concepts clear and explain students in a better manner.

Teacher 5:

Often, I repeat the topic a number of times and the frequent feedback I receive is positive. However, after the class, many students come up to meet me and ask for extra classes for discussions. Many of the students complain about the direct method of teaching and even regret for not getting any

ISSN 1013-5316; CODEN: SINTE 8Sci.Int.(Lahore),28(3),3197-3201,2016is:translations of the books in their mother tongue for clear
understanding. Dearth of translations of the text books is an
undeniable truth, but I think it is the lack of pedagogical
skills of how to deal in such class, when the medium of
instruction and mother tongue are different and instead of
smooth teaching learning process, students are rather
entrapped into linguistic complexities , affecting their
progress.

Excerpts from the students' interview : Student 5:

I did Matriculation from Government sector school, my medium of instruction was Sindhi: my mother tongue. My books were in my mother tongue. I never felt any problem. Now at college, we don't have any books to take help outside classroom. I request Government to please take notice of this problem.

Student 6:

I come from a humble background, my parents cannot send me to any private college. But really there is difficulty in understanding subjects like Physics, Chemistry and Biology in English language. Whenever I go to college library to get any reference book in Sindhi, I always return disappointed. There is an acute dearth of books or other relevant material in mother tongue.

FINDINGS AND DISCUSSIONS:

The purpose of choosing qualitative method was to look deep into the matter . And Interviews with the stake-holders created an opportunity to discuss the problem in detail , which could have not been possible through the quantitative or close ended questionnaire.

The themes extracted from the interview discussed the personal opinions made from their experiences of both the participating teachers and students. From their interviews it could be assumed that education in mother tongue was a basic step for nourishment of the cognitive abilities of the learner. Once they had a proper understanding of both the vocabulary and concepts, they are able to transfer their skills from a familiar language into a foreign language and built further knowledge. This observation could conform to the theory of Cummins, who suggested the similar ideas in his *Interdependence Theory* and the *Common underlying proficiency*. It endorses that the knowledge attained in the L1 helps to be used in Foreign Language and no relearning is required.

Another point of equal importance raised from the interview was making the learners self-sufficient and making them confident enough to study, understand, evaluate and reproduce to practically implement the scientific concepts .If the learning took place in the mother tongue , innovativeness and creativity will increase and it will certainly decrease the copy culture and increase the progress and finally it will reduce the dropout ratio.

If one thought of practical implementation of the mother tongue as a medium of instruction in educational policy, then at first it required translated versions of the text books. Such a view was taken from both the teachers as well as the learners. In case of any instrumental benefits attached with the foreign Sci.Int.(Lahore),28(3),3197-3201,2016

language learning. Ofcourse, this fact could not be denied, but this gap could be filed by opting for English for Specific Purpose short courses after the needs analysis of the learner .

CONCLUSION:

This article concludes that Mother tongue is the only way out to help students learn scientific courses. Mother tongue helps them understand the concepts and at the next step it helps the learner to learn and internalize the vocabulary and scientific concepts.

From the interviews, three themes were extracted : ambiguous language policy in the country, medium of instruction as a reason of harmful results and scant literature and dearth of teacher training.

It is urged from the policy makers to look into the matter of education. Firmly plan an educational policy ensuring the mother tongue to be the medium of instruction to help save the future of the students and develop the country.

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